

POPULATIONS OF *ACLERIS CRISTANA* ((D. & S.)) IN RECENT YEARS WITH DESCRIPTIONS OF FIVE NEW FORMS AND THE SINKING OF ONE

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WHEN I WROTE about *cristana* twelve years ago, I was mainly concerned with showing how we could breed rare and new forms in inverse numbers to those caught. Some comments were made about the actual collecting, which in our case was largely to have overwintering moths for the breeding sleeves from which we collected the eggs in spring. I intend here to write of the subsequent period, 1981-92 because my son Alan and I have continued our pursuit of *cristana*.

We still record every form caught (and bred) releasing over 90%. On a good day we would catch and tube twenty or so, write down the forms, and throw out the moths after back-tracking some distance then proceed similarly. Alas, in recent years a notebook hasn't been necessary until 1992 as one could remember the small catches. In the table below the serious decline in the second half of the decade shows clearly. The total catch for the second five years would not have been a good annual one. The numbers bred reflect the catches of the previous year.

<i>Year</i>	<i>Total caught</i>	<i>Trips</i>	<i>No. bred</i>	<i>Year</i>	<i>Total caught</i>	<i>Trips</i>	<i>No. bred</i>
1981	198	18	160	1986	11	12	185
1982	337	23	69	1987	42	7	0
1983	788	34	368	1988	34	12	0
1984	456	24	1380	1989	66	18	222
1985	501	23	1576	1990	34	9	0
Totals	2230		3553	Totals	187		407
				1991	73	12	0
				1992	191	7	0

The 1985 caught total was distorted by our catching just over 300 in three trips to Benfleet. Yet in the following year only two were caught there. That is a comment on the violent population fluctuations which occur with this moth. Last year must have been a better season. I had to give up driving in July so was unable to visit our Surrey and Sussex localities. Alan, who had moved to Bedfordshire last year, found a few *cristana* in north Hertfordshire before we joined forces for a week from the 12th September. This turned out to be the best week of a wet month for we were rained off only twice. We achieved one record for we collected in five counties on four consecutive days: Surrey, Sussex, Bedfordshire/Hertfordshire and were

rained off only twice. We achieved one record for we collected in five counties on four consecutive days: Surrey, Sussex, Bedfordshire/Hertfordshire and Huntingdon (Cambridgeshire). More rain followed and one of the coldest Octobers so that Alan was unable to do any more trips.

We are faced now with the complete disappearance of sites and decline in those that do survive. Epping Forest, always a famous place for *cristana* used to give us large numbers on our visits — in fact it held the best one-day-one-place result, 145 on 3.x.1971. Then a fire access road was driven through the best thicket, and slowly after that the counts declined to ones and twos. The area was a limited one for most of the forest is unsuitable and we only ever saw two or three away from our chosen beat.

The building of the M25 destroyed two of the best Surrey localities and most of the Sussex ones have gone, removed by modern farming practices. Some, or all, thickets degenerate and nowadays there is no longer new growth for the formation of new ones. Blackthorn and hawthorn do not take long to be workable, but there is very much an optimum stage for collecting.

One exception to the decline story is Monks Wood where we have monitored the numbers since 1968. Though they have fluctuated, often widely, the population there is in good hands and the wood is a joy to us. We have never taken *cristana* further north than Caster Hanglands, but we have not had the opportunity to try. I would be grateful for more northerly records — indeed I would like to know if there are any collectors who make *cristana* a special study.

The habits of the moth in the field have been discussed in the past (Sheldon, 1917-18, Manley, 1973) including its opposite behaviour in the net to other species in its trying to escape through the bottom of the net. It must be pointed out that in hot weather the moths fly quickly up the net to the mouth. On a good day it often happens that one catches two or three at once making the securing of them rather tricky.

As I write (March 1993) I hear that my son has just accepted the offer of a job in Northumberland. This means the end of our *cristana* hunting.

Descriptions of the new forms

(Manley (*loc. cit.*) gives a complete set of references for *cristana* up to 1973.)

1. *parvana* f. nov.

This is f. *subalboflammana* Clark with a cream vitta instead of white. The holotype and three paratypes were bred in 1985 from a Huntingdon-Sussex cross. In Manley's key it would come under 1c.

2. *prosequana* f. nov.

This is f. *sequana* Curtis without the buttons. The holotype and one paratype were bred in 1986 from a Huntingdon-Essex cross. Manley's key: As 5a, but without buttons.

3. *janetana* f. nov.

We have here f. *cristalana* Donovan with additional red streaks from the base of the forewings to, and including, the buttons. Manley describes f. *mantana* with a sub*cristalana* Curtis background which had the red streaks, from a specimen without data in the Natural History Museum. I later found two similar specimens there, again without data. I suspect all three came from Epping Forest. Our holotype was caught in Monks Wood on 13.viii.1983. Manley's key: As 5c with a red streak from the base of the forewings to the disc.

4. *nigrosubpurdeyana* f. nov.

This is a melanic form of *subpurdegana* Manley. The holotype and 14 paratypes were bred in 1983 from an Essex-Sussex cross. Manley's key needs an additional category; 15 (a) Forewings black or dark brown with white dusting and white buttons.

5. *nigropurdeyana* f. nov.

A melanic form of *purdeyana* Webb. The holotype and two paratypes were bred in 1982 from an Essex-Huntingdon cross. Fits in the key with the one above.

In 1981 I described the form *dualana* as follows:

"The area above a line drawn from the base of the wing through the disc to the apex of the forewings as blackish purple while the lower part is a rich mahogany colour. There are no buttons." I have found that these colours are unstable and the forewings have faded to a uniform brown making the moths *unicolorana* Desvignes. In view of this I sink the name *dualana*.

Acknowledgements

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References

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